



# Underground News

Providing Information to the Water Well, UIC & Underground Hydrocarbon Storage Industries in Kansas

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Fall 2006

## UNDERGROUND HYDROCARBON STORAGE UPDATE

by Cina Poyer, L. G.

**T**he Underground Hydrocarbon Storage Unit (UHS) recently welcomed Jeffrey Hand as an environmental technician. Jeff has industry experience and most recently worked in the Public Water Supply Section in the Bureau of Water.

The UHS Unit has placed several new or revised procedures on the KDHE Web site at [www.kdheks.gov](http://www.kdheks.gov). Procedures UICLPG-20 and UICLPG-26 outline the information required for submitting test plans, field procedures and final reports for both the nitrogen/brine interface tests and the pressure observation tests. Procedure UICLPG-18 titled "Emplacement of Approved Materials Into a Cavern" has also been posted on the Web site.

The Liquid Petroleum Gas (LPG) storage industry has been busy testing, logging, monitoring, installing liners, changing wellheads and updating facility equipment and systems. As of June 1, 2006, compliance testing/monitoring had been completed on approximately 130 wells. The industry has met compliance requirements for 25 percent of the 514 wells that are in active or monitoring status. Sixty liners have been installed in existing single-cased wells and 50 percent were installed to place the well in the ten-year cycle for casing inspection logs. Additionally, facilities have also been busy with facility upgrades, including the installation of SCADA systems, metering systems, brine pond liners, and degassifiers at brine ponds. The LPG regulations allowed a seven-year phase-in for testing/monitoring and a five-year phase-in for equipment upgrades.

## IS A KDHE WATER WELL CONTRACTOR'S LICENSE NECESSARY TO INSTALL A PITLESS ADAPTOR?

by Richard Harper, L.G.

**T**he following is a question often asked of KDHE: "Is a KDHE Water Well Contractor's License required for a pump installer to install pitless adaptors or pitless units on the casing of water wells that were drilled by a KDHE Licensed Water Well Contractor?" There are occasions when the KDHE Licensed Water Well Contractor drills, installs the casing, and grouts the water well to the surface and then leaves the well location after being informed by the well owner that a water well pump installer will install the pitless adaptor or pitless units.

KDHE regulations define a reconstructed water well as an existing well that has been deepened or has had the casing replaced, repaired, added to or modified in any way for the purpose of obtaining groundwater. To install a pitless adaptor or unit, the water well casing has to be either cut off or holes have to be drilled in the casing. This type of activity constitutes a casing modification.

Additionally, KDHE regulations define a "water well contractor" or "contractor" as any individual, firm, partnership, association, or corporation who constructs, reconstructs, or treats a water well.

This work meets the definition of well work that must be done by a KDHE Licensed Water Well Contractor. A pump installer who installs a pitless adaptor or unit meets the definition of a water well contractor. Therefore, the pump installer is required to have a Water Well Contractor's License issued by KDHE.

*New KDHE Logo  
was unveiled on  
August 1, 2006*



## ELECTRONIC REPORTING BECOMES REALITY

by Kirk Hoeffner, L.G.

In May of this year, KDHE's Underground Injection Control (UIC) Program received its first monthly monitoring report for a Class I disposal well electronically. This signified the culmination of several years of work by KDHE to convert an existing electronic submittal system, which was originally developed through a grant with the U.S. Environmental Protection Agency (EPA) for KDHE's National Pollutant Discharge Elimination System (NPDES) Program. KDHE's Technical Services Section, whose many hours of work on this project are greatly appreciated, spearheaded this conversion.

The UIC electronic monitoring report submittal program uses Word Pad, a Microsoft program standard on all Microsoft computers, which allows daily entry of the required monitoring parameters for Class I wells. After the entire month's data is entered, the facility can automatically generate a monthly report for submittal to KDHE. Passwords are required for access to the monitoring program and only the cognizant official or "authorized signatory" can submit the report to KDHE. This security measure allows KDHE to check if the submitted data has been altered during the transfer process or was submitted without authorization and acts as the "electronic signature" for the monitoring report.

There are numerous advantages to the electronic reporting system including automatically calculating the well's monthly average, maximum, and minimum values for total injection volume, injection pressure, and annulus pressures. The system also calculates the total injected volume for the month. An exceedance of permit limits or omitted monitoring data are automatically flagged in the program prior to submittal of the monthly report for correction or explanation. These features should assist Class I operators in reducing data entry errors, which will obviously improve the accuracy of reports and compliance. The electronic reporting program will also expedite KDHE's review of the monitoring reports.

Currently, four facilities, (with a total of nine Class I wells or almost 20 percent of the total active Class I wells in Kansas), are set up to use the electronic reporting system and another facility is awaiting deployment. The only disadvantage to the electronic reporting system is the significant amount of time necessary to do the initial programming of the Word Pad file, which must be specific to each Class I well's permit requirements. As with any new system, over time KDHE UIC staff is becoming more proficient in expediting this programming process. If your facility has a Class I disposal well and is interested in using the Class I electronic monitoring system, please contact the KDHE UIC staff for assistance.

## HUTCHINSON SINKHOLE UPDATE

by Mike Cochran, L.G.

In the Spring 2005 edition of the Underground News we described the sinkhole, which developed January 3, 2005, near the BNSF mainline railroad tracks located in Southeast Hutchinson. In the Fall 2005 edition of the Underground News we provided an update which included a description of the filling of the cavern beneath the sinkhole to assist in stabilizing the sinkhole and that these efforts seemed to have worked. The sinkhole continues to remain stable. In February 2006 the sides of the sinkhole were sloped and graded for additional stabilization. A security fence was also installed completely around the sinkhole for safety. The fill material in the cavern beneath the sinkhole is being monitored for settling and a determination will be made later this year whether to add more material to the cavern. Information continues to be collected on the sinkhole to determine any additional corrective actions that might be warranted.



*Hutchinson Sinkhole, 2006*

**GEOLOGY SECTION COMPLIANCE UPDATE:****Underground News**

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**Prepared & Distributed by  
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**Direct inquiries and opinions to:**

**KDHE - BOW**

**Underground News**

**1000 SW Jackson, Suite 420**

**Topeka, KS 66612-1367**

**[dbiester@kdhe.state.ks.us](mailto:dbiester@kdhe.state.ks.us)**

**For subscription information:**

**Call: (785) 296-5524**

**Fax: (785) 296-5509**

% *The UIC Program - Nine Notices of Violation for Significant Noncompliance during January 1 through June 30, 2006 were issued. These included directing motor vehicle waste or industrial waste to septic systems, annulus pressure below the minimum required for a Class I well, and exceeding an injection limit for a Class I well.*

% *The Water Well Program - KDHE recently received money from the State Set-Off Program to settle a monetary penalty assessed to a water well contractor several years ago for improper well construction. The water well contractor went out of business before paying the penalty. The Kansas Department of Administration's Director of Accounts and Reports can set off monies the state owes debtors against monies owed to the state. This greatly assists agencies such as KDHE in collecting monies owed to them.*

# REGULATORY RA GENDA

by Mike Cochran, L.G.



**T**he KDHE Geology Section is developing the following regulations:

- ~ Water Wells – Developing conceptual draft regulations for internal KDHE discussions addressing push type monitoring wells, flush mount completion and increasing fees.
- ~ UIC, Class III Injection Wells (Salt Solution Mining) – Modifying existing regulations, including construction, testing, monitoring, permitting, reporting, operation and closure requirements and fee increases. Industry is still providing comments on the conceptual draft regulations.
- ~ UIC, Class V Injection Wells (Shallow) – Developing regulations to clarify prohibition of motor vehicle waste disposal wells and update definitions and inventory requirements. The common well types for motor vehicle waste and industrial waste disposal is a septic system or drywell. These regulations are now in the formal regulation adoption process. The proposed regulations have been reviewed by the Kansas Department of Administration and are now being reviewed by the Attorney General's Office.

**Kansas Department of Health & Environment  
Bureau of Water - Geology Section  
1000 SW Jackson, Suite 420  
Topeka, Kansas 66612-1367**

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**Did you know ...** There are more than 300,000 miles of pipelines carrying crude oil, natural gas and fuels throughout the United States according to the American Petroleum Institute.

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The average American uses 100 gallons of water per day according to the Groundwater Foundation.

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Class I industrial disposal well operators in Kansas reported to KDHE the injection of a total of 2,690,162,618 gallons of wastewater in calendar year 2005. This includes recovered groundwater contaminated by industrial wastes. The vast majority of this water was injected into the Arbuckle Formation.

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***KDHE* Geology Section Contact List:**



<b>Mike Cochran, Section Chief . . . . .</b>	<b>785.296.5560</b>
<b>Debra Biester, Administrative Assistant . . . . .</b>	<b>785.296.5524</b>
<b>Julie Freeland, Administrative Assistant . . . . .</b>	<b>785.296.5274</b>
<b>Richard Harper, Unit Chief, Water Wells . . . . .</b>	<b>785.296.3565</b>
<b>Don Taylor, Environmental Technician, Water Wells . . . . .</b>	<b>785.296.5522</b>
<b>Kirk Hoeffner, Unit Chief, UIC Program . . . . .</b>	<b>785.296.1843</b>
<b>Cynthia Khan, Professional Geologist, UIC Program . . . . .</b>	<b>785.296.5554</b>
<b>Cina Poyer, Unit Chief, Underground Storage Unit . . . . .</b>	<b>785.296.5277</b>
<b>Mark Jennings, Professional Geologist, Underground Storage Unit . . . . .</b>	<b>785.296.7254</b>
<b>Jeffrey Hand, Environmental Technician, Underground Storage Unit . . . . .</b>	<b>785.296.7265</b>

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